



Explorers Program Overview

2022 Heliophysics
SMEX Concept Study Kickoff

David Carter
Explorers Associate Deputy
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Explorers Program Overview (1 of 2)



- NASA's oldest, continuous program
 - Over 100 successful missions since 1958
- Program Objective—Frequent flight opportunities for worldclass scientific investigations
- Uncoupled program of missions with unique science capabilities supporting heliophysics and astrophysics science goals



Explorers Program Overview (2 of 2)



- Mission class characterized by size, schedule, and budget cost caps
 - MIDEX
 - SMEX
 - Mission of Opportunity
- Missions solicited through Announcement of Opportunity
- Missions developed in Principal Investigator mode
- Mission oversight provided by the Explorers Program Office at GSFC



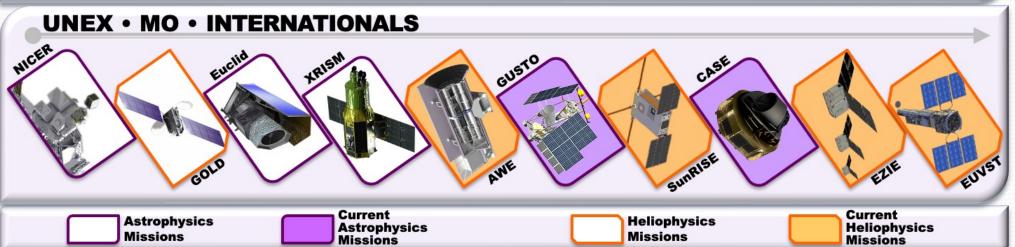
Explorers Missions



Missions





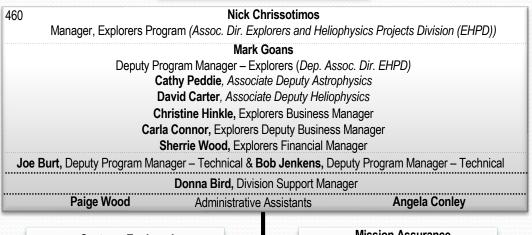




Explorers Program Organization Chart (1 of 2)



SMD
Astrophysics & Heliophysics Divisions



Explorers/ Astrophysics

Systems Engineering John Staren Business Pool Procurement Proj. Support Financial Rideshare Office Keith Chamberlin

ATHENA*

Joy Bretthauer, PM Andy Ptak, PS John Regan, Sr. RA

CASE

David Carter, MM Mark Swain (JPL), PI Moshe Pniel (JPL), PM Justin King, FMS

COSI

Cathy Peddie, MM Roger Kraus, Deputy MM John Tomsick (UCB), PI Bryce Unruh (UCB), PM Kyle Young, Sr. RA

Euclid*

Cathy Peddie, MM Michael Seiffert (JPL), PS Moshe Pniel (JPL), PM Sean Conover. Sr. RA

GUSTO

LaMont Ruley, MM Christopher Walker (UA), PI Kieran Hegarty (APL), PM Julie Myers, Sr. RA

SPHEREX

Cathy Peddie, MM Roger Kraus, Deputy MM Jamie Bock (Caltech), Pl Allen Farrington (JPL), PM Ken Lee, FMS

XRISM*

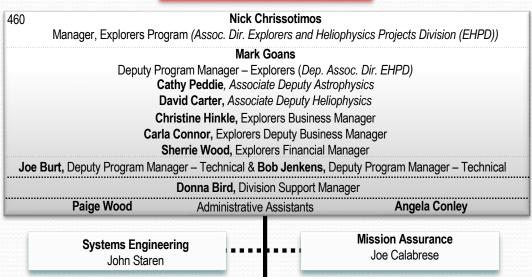
Lillian Reichenthal, PM Richard Kelley, PI Sherrie Wood, FMS



Explorers Program Organization Chart (2 of 2)



SMD Astrophysics & Heliophysics Divisions



Explorers/ Heliophysics

Business Pool
Procurement Proj. Support Financial

Rideshare Office
Keith Chamberlin

AWE

LaMont Ruley, MM Michael Taylor (USU), PI Burt Lamborn (SDL), PM Sherrie Wood, FMS

MUSE

Roberto Aleman, MM Bart DePontieu (LMATC), PI Gary Kushner (LMATC), PM Julie Myers, Sr. RA

EUVST

Jonathan Burroughs, MM Harry Warren (NRL), PI Don McMullin (NRL), PM Sean Conover, Sr. RA

PUNCH

Tyrone Dillard, MM Craig DeForest (SwRI), PI Ronnie Killough (SwRI), PM Ken Lee, FMS

EZIE

Ryan Turner, MM Jeng-Hwa Yee (APL), PI Nelofar Mosavi (APL), PM Jessica Hamill, Sr. RA

SunRISE

Cathy Peddie, MM Roger Kraus, Deputy MM Justin Kasper (UMI), PI Jim Lux (JPL), PM Julie Myers, Sr. RA

HelioSwarm

LaMont Ruley, MM Harlan Spence (UNH), PI Butler Hine (ARC), PM Vacant, Sr. RA

TRACERS

David Carter, MM David Miles (UI), PI Keith Cleveland (UI), PM Justin King, FMS



Explorers Program Office Roles/Responsibilities (1 of 2)



- Support the Principal Investigator in achieving mission success and ensure that the mission complies with all applicable government and NASA-specific policies and regulations.
- Provide comprehensive oversight of the mission development process by conducting ongoing assessments of the mission's cost, schedule and technical progress.
- Provide mission status to NASA GSFC and HQ through monthly reviews, weekly reporting and timely notification of problems & resolution plans.



Explorers Program OfficeRoles/Responsibilities (2 of 2)



- Coordinate the provision of certain services and equipment as required, such as space communication support, launch services, etc.
- Provide recommendations for the chair and membership of the Standing Review Board.
- Appoint a Mission Manager for full missions not managed by GSFC and all missions of opportunity.



Mission Manager Roles/Responsibilities



The Mission Manager will:

- Serve as the Goddard point of contact and the Contracting Officer's Representative or Task Monitor, as required.
- Lead the GSFC engineering, mission assurance and business teams in obtaining detailed cost, schedule and technical insight to facilitate reporting to GSFC and HQ.
- Provide access to the Goddard services and support as requested (e.g., EEE parts lab, board coupon testing, materials lab, SMA services and engineering services).
- Ensure that adequate government resources are applied to the mission as required.



Explorers Program Team



- Mission Manager
- Systems Engineer
- Instrument Systems Engineer
- Mission Assurance Lead
- Senior Resource Analyst
- Scheduling/Planning
- Configuration Management
- Other Program Support Available:
 - Instrument Systems
 - Electrical Systems
 - Mechanical Systems
 - Quality Engineering
 - System Safety
 - EVM Lead



Available Goddard Services



- Available GSFC services include:
 - EEE parts testing
 - Radiation effects analysis/testing
 - Materials engineering support (includes board coupon testing)
 - Thermal coatings engineering support
 - Discipline engineering support
 - Space communications support
 - Instrument detector systems support
 - Tiger Team and Anomaly Review Team Support